

# OPTICAL AMPLITUDE DEMODULATOR

## Abstract of Disclosure

An optical amplitude demodulator for demodulating signals received from a fibre optic link. The demodulator comprises a plurality of optical sensors for detecting optical output from the fibre optic link, whereby each of the optical sensors has a different detection threshold. Generally, the plurality of optical sensors produce a plurality of digital outputs corresponding to the optical output level detected. A priority encoder encodes the digital outputs into a multi-bit digital signal. Additionally, each of the plurality of optical sensors has an associated optical filter, whereby each of the filters has a different level of opaqueness. Each filter filters received optical output prior to detection by the associated optical sensor.

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## Figures

Figure 1: Schematic representation of the experimental design. The diagram shows a flow from 'Study 1' to 'Study 2'. Study 1 involves 'Pretest' and 'Main Study'. Study 2 involves 'Pretest' and 'Main Study'. The 'Main Study' in Study 2 is divided into 'Control' and 'Intervention' groups. The 'Intervention' group is further divided into 'Intervention 1' and 'Intervention 2'. The 'Control' group is further divided into 'Control 1' and 'Control 2'. The 'Intervention 1' and 'Intervention 2' groups are further divided into 'Intervention 1a' and 'Intervention 1b' and 'Intervention 2a' and 'Intervention 2b'. The 'Control 1' and 'Control 2' groups are further divided into 'Control 1a' and 'Control 1b' and 'Control 2a' and 'Control 2b'. The 'Intervention 1a' and 'Intervention 1b' groups are further divided into 'Intervention 1a1' and 'Intervention 1a2' and 'Intervention 1b1' and 'Intervention 1b2'. The 'Intervention 2a' and 'Intervention 2b' groups are further divided into 'Intervention 2a1' and 'Intervention 2a2' and 'Intervention 2b1' and 'Intervention 2b2'. The 'Control 1a' and 'Control 1b' groups are further divided into 'Control 1a1' and 'Control 1a2' and 'Control 1b1' and 'Control 1b2'. The 'Control 2a' and 'Control 2b' groups are further divided into 'Control 2a1' and 'Control 2a2' and 'Control 2b1' and 'Control 2b2'. The 'Intervention 1a1' and 'Intervention 1a2' groups are further divided into 'Intervention 1a1a' and 'Intervention 1a1b' and 'Intervention 1a2a' and 'Intervention 1a2b'. The 'Intervention 1b1' and 'Intervention 1b2' groups are further divided into 'Intervention 1b1a' and 'Intervention 1b1b' and 'Intervention 1b2a' and 'Intervention 1b2b'. The 'Intervention 2a1' and 'Intervention 2a2' groups are further divided into 'Intervention 2a1a' and 'Intervention 2a1b' and 'Intervention 2a2a' and 'Intervention 2a2b'. The 'Intervention 2b1' and 'Intervention 2b2' groups are further divided into 'Intervention 2b1a' and 'Intervention 2b1b' and 'Intervention 2b2a' and 'Intervention 2b2b'. The 'Control 1a1' and 'Control 1a2' groups are further divided into 'Control 1a1a' and 'Control 1a1b' and 'Control 1a2a' and 'Control 1a2b'. The 'Control 1b1' and 'Control 1b2' groups are further divided into 'Control 1b1a' and 'Control 1b1b' and 'Control 1b2a' and 'Control 1b2b'. The 'Control 2a1' and 'Control 2a2' groups are further divided into 'Control 2a1a' and 'Control 2a1b' and 'Control 2a2a' and 'Control 2a2b'. The 'Control 2b1' and 'Control 2b2' groups are further divided into 'Control 2b1a' and 'Control 2b1b' and 'Control 2b2a' and 'Control 2b2b'.